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What is claimed is:

1. A speaker system comprising:

a speaker,

amplitude detecting means for detecting an amplitude value of a diaphragm of the speaker to produce an amplitude signal corresponding to the amplitude value, and

adding means for adding the amplitude signal to a driving signal for driving the speaker.

 A speaker system according to claim 1, wherein the amplitude detecting means comprises:

velocity detecting means for detecting a velocity of the diaphragm of the speaker to produce a velocity signal; and

integrating means for integrating the integrated velocity signal to produce the amplitude signal.

3. A speaker system according to claim 2, wherein the integrating means is a first order low pass filter having a cutoff frequency that is lower than a lowest resonance frequency $f_{\scriptscriptstyle 0}$ of the speaker.